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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 4

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Application Number	10/054,611	
Filing Date	January 18, 2002	
First Named Inventor	Cech	-
Art Unit	1646	
Examiner Name		
Attorney Docket Number	015389-002970US	

	U.S. PATENT DOCUMENTS+				
		Document Number			
Examiner Initials*	Cite No.1	Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
iW.	A1	US-5,597,697	01-28-1997	Diamond	
unl	A2	US-5,917,025	06-29-1999	Collins	
W.	A3	US-5,919,656	07-06-1999	Harrington, et al.	
W.	A4	US-6,166,178	12-28-2000	Cech et al.	
W.	A5	US-6,309,867 B1	10-30-2001	Cech et al.	•
W.	A6	US-6,337,200 B1	01-08-2002	Morin	
oW,	A7	US-6,475,789 B1	11-05-2002	Cech et al.	
JW)	A8	US-6,610,839 B1	08-26-2003	Cech et al.	
M	A9	US-6,617,110 B1	09-09-2003	Cech et al.	

	FOREIGN PATENT DOCUMENTS							
		For	eign Patent Documer	nt		Name of Patentee or	Pages, Columns, Lines,	
Examiner Initials*	Cite No. <sup>1</sup>	Country Code <sup>3</sup>	Number <sup>4</sup> kind	Code <sup>6</sup> (if known)	Publication Date MM-DD-YYYY	Applicant of Cited  Document	Where Relevant Passages or Relevant Figures Appear	T⁰
M.	B1	GB	2 317 891	Α	04-08-1998			
W.	B2	PCT	WO 84/03564	A1	09-13-1984			
Ma	B3	PCT	WO 94/17210	A1	08-04-1994			
W	B4	PCT	WO 98/14592	A2	04-09-1998			
W	B5	PCT	WO 98/14593	A2	04-09-1998			
W.	B6	PCT	WO 99/33998	A2	07-08-1999			
W	B7	PCT	WO 99/38964	A2	08-05-1999			
W	B8	PCT	WO 00/46355	A2	08-10-2000			

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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 2 of 4

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		NON PATENT LITERATURE DOCUMENTS	
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M	C1	ADAMSON, D. et al. "Significant Telomere Shortening in Childhood Leukemia", Cancer Genet. Cytogenet, 1992; pp. 204-206, Vol. 61	
dw	C2	CHIU, et al. "Replicative senescence and cell immortality: the role of telomeres and telomerase (44075)", <i>Proc. Soc. Exp. Bio. Med.</i> , 1997, pp. 99-106, Vol. 214.	
du	СЗ	CHONG, L. et al. "A Human Telomeric Protein", Science, Dec. 1995, pp. 1663-1667, Vol. 270.	
del	C4	COUNTER, C. et al. "Telomerase activity in human ovarian carcinoma"; <i>Proc. Natl. Acad. Sci USA</i> ; April 1994; Vol. 91; pp. 2900-2904	
dw	C5	COUNTER, C. et al. "Telomerase Activity in Normal Leukocytes and in Hematologic Malignancies" Blood, May 1, 1995; pp. 2315-2320, Vol. 85, No. 9.	
M	C6	COUNTER, C. et al. "Telomere shortening associated with chromosome instability is arrested in immortal cells which express telomerase activity", <i>The EMBO Journal</i> ; 1992, pp. 1921-1929, Vol. 11; No. 5, Oxford University Press.	
dul	C7	DE LANGE, T. et al. "Structure and Variability of Human Chromosome Ends"; Molecular and Cellular Biology; February 1990; pp. 518-527, Vol. 10, No. 2.	
M	C8	FLAVELL, R. & MATHIAS, R. "Prospects for transforming monocot crop plants", <i>Nature</i> , 12 Jan. 1984, pp. 108-109, Vol. 307.	
M	C9	FRESHNEY, <u>Culture of Animal Cells</u> , <u>A Manual Basic Technique</u> , p. 4, Alan R. Liss, Inc. New York, 1983.	
Liv	C10	Genbank Accession No. A46242; September 21, 1993	
JW .	C11	Genbank Accession No. L38903; January 30, 1995	
M	C12	Genbank Accession No. Q06163; November 01, 1995	
M	C13	Genbank Accession No. S39696; October 07, 1994	
W	C14	Genbank Accession No. S53396; May 5, 1995	
W	C15	GenBank Accession No. U95964; May 5, 1997	
W	C16	GLASER, P. et al. "Bacillus subtilis genome project: cloning and sequencing of the 97 kb region from 325° to 333°" <i>Molecular Microbiology</i> , 1993, pp. 371-384, Vol. 10, No. 2.	
du	C17	GOODMAN, R. et al. "Gene Transfer in Crop Improvement", Science, 3 April 1997, pp. 48-54, Vol. 236.	

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Signature	WM MW CNOW	Considered	- 4 1 .0 1 4 1

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Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

#### Substitute for form 1449B/PTO INFORMATION DISCLOSURGE STATEMENT BY APPLICANT

(use as many sheets as necessary) Sheet of 4

'	Complete if Known					
Application Number	10/054,611					
Filing Date	January 18, 2002					
First Named Inventor	Cech					
Art Unit	1646					
Examiner Name						
Attorney Docket Number	015389-002970US					

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T2
dul	C18	GREIDER, C. "Telomeres, Telomerase and Senescence"; <i>BioEssays</i> ; 1990; pp. 363-369, Vol. 12, No. 8.	
dw	C19	HARLEY, C. "Telomere loss: Mitotic clock or genetic time bomb?" <i>Mutation Research</i> ; 1991; pp. 271-282, Vol. 256, Elsevier Science Publishers.	
M	C20	HARLEY, C. & VILLEPONTEAU, B. "Telomeres and telomerase in aging and cancer" Current Opinion in Genetics and Development; 1995, pp. 249-255, Vol. 5.	
du	C21	HARLEY, C. et al. "Telomeres shorten during ageing of human fibroblasts", <i>Nature</i> , 31 May 1990; pp. 458-460, Vol. 345.	
M	C22	HASTIE, N. et al. "Telomere reduction in human colorectal carcinoma and with ageing", Nature, 30 August 1990, pp. 866-868, Vol. 346.	
M	C23	HEALY, K. C. "Telomere dynamics and telomerase activation in tumor progression: prospects for prognosis and therapy" <i>Oncol. Res.</i> , 1995, pp. 121-130, Vol. 7	
drl	C24	HENDERSON, C. Cancer genetics gene regulates telomerase resulting in death of cancer cells; Gene Therapy Weekly; 11 September 1995	
dw	C25	HIYAMA, E. et. al. "Correlating telomerase activity levels with human neuroblastoma outcomes"; Nature Medicine; 3 March 1995; pp. 249-255, Vol. 1, No. 3.	
M	C26	HOLTZMANN, K. et al. "Telomeric Associations and Loss of Telomeric DNA Repeats in Renal Tumors", Genes, Chromosomes & Cancer, 1993, pp. 178-181, Vol. 6.	
M	C27	JÄHNE, A. et al. "Genetic Engineering of Cereal Crop Plants: A Review", Euphytica, 1995, pp. 35-44, Vol. 85, Kluwer Academic Publishers, Netherlands.	
M	C28	JOHNSON, P. et al., "Expression of Wild-Type p53 Is Not Compatible with Continued Growth of p53-Negative Tumor Cells", Molecular and Cellular Biology, Jan. 1991, p. 1-11, Vol. 11, No. 1.	
M	C29	JOLLIFFE, L.K. "Humanized antibodies: enhancing therapeutic utility through antibody engineering", Int. Rev. Immunol., 1993, pp. 241-250, Vol. 10	
W	C30	KIM, N. et al. "Specific Association of Human Telomerase Activity with Immortal Cells and Cancer", Science, 23 December 1994, pp. 2011-2014, Vol. 266.	
M	C31	KLINGELHUTZ, A. et al. "Restoration of Telomeres in Human Papillomavirus- Immortalized Human Anogenital Epithelial Cells"; <i>Molecular and Cellular Biology</i> ; Feb. 1994, pp. 961-969, Vol. 14, No. 2.	
un	C32	LEWIS, A. & CROWE, J.S. "Generation of humanized monoclonal antibodies by 'best fit' framework selection and recombinant polymerase chain reaction", Year Immunol., 1993, pp. 110-118, Vol. 7	
In	C33	Linking telomerase and tumors; Genesis Report- Dx; 1995; Vol. 4, No. 6; Publisher Genesis Group Associates	
W	C34	MALICKI, J. et al. "A human HOX4B regulatory element provides head-specific expression in Drosophila embryos", Nature, 23 July 1992, pp. 345-357, Vol. 358.	

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### INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known Application Number 10/054,611 Filing Date January 18, 2002 First Named Inventor Cech Art Unit 1646 Examiner Name Attorney Docket Number 015389-002970US

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		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 2
	C35	NATARAJAN et al. "Major histocompatibility complex determinants select T-cell receptor alpha chain variable region dominance in a peptide-specific response." <i>Proc. Natl. Acad. Sci.</i> , Oct 1992, pp. 8874-8878, Vol. 19.	
	C36	PASZKOWSKI, JERZY et al. "Direct gene transfer to plants," The EMBO Journal, 1984, pp. 2717-2722, Vol. 3, No. 12.	
	C37	POTRYKUS, I. et al. "Direct gene transfer to cells of a graminaceous monocot", <i>Mol. Gen. Genet.</i> , 1985, pp. 183-188, Vol. 199.	
	C38	RAYMOND, E., et al.; Agents that target telomerase and telomeres; Curr. Opin. Biotechnol.; 1996; 7:583-91	
	C39	RHYU, M.S. "Telomeres, telomerase, and immortality"; J. Natl. Cancer Inst.; 21 June 1995; pp. 884-894, Vol. 87, No. 12.	
	C40	SCHENA et al. "Parallel human genome analysis: Microarray-based expression monitoring of 1000 genes", <i>Proc. Natl. Acad. Sci.</i> , Oct. 1996, pp. 10614-10619, Vol. 93, USA.	
	C41	SCHWARTZ, H. et al. "Telomere Reduction in Giant Cell Tumor of Bone and with Aging"; Cancer Genet Cytogenet; 1993; pp. 132-138, Vol. 71, Elsevier Science Publishing Co., Inc., New York, U.S.A.	
	C42	SMITH, J. & YEH, G. "Telomere Reduction in Endometrial Adenocarcinoma"; Am. J. Obstet. Gynecol.; Dec. 1992; pp. 1883-1887, Vol. 167, No. 6	
	C43	TAIT, J. et al. "Structure and Polymorphisms of the Human Annexin III (ANX3) Gene", Genomics, 1993, pp. 79-86, Vol. 18, No. 1	
	C44	WINTER, G. & HARRIS, W. "Humanized Antibodies", <i>Trends Pharmacol. Sci.</i> , May 1993, pp. 139-143, Vol. 14.	
	C45	WIRTH, URS et al; "Immediate-Early RNA 2.9 and Early RNA 2.6 of Bovine Herpesvirus 1 Are 3' Coterminal and Encode of Putative Zinc Finger Transactivator Protein"; <i>Journal of Virology</i> ; May 1992; pp. 2763-2772, Vol. 66, No. 5.	

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 1

	Complete if Known
Application Number	10/054,611
Filing Date	January 18, 2002
First Named Inventor	Thomas R. Cech
Art Unit	1652
Examiner Name	Malgorzata A. Walicka
Attorney Docket Number	015389-002970US

			U.S. PATENT DO	CUMENTS+	
Examiner Initials*	Cite No.1	Document Number  Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
iW .	A1	US-6,440,735 B1	08-27-2002	Gaeta	
M	A2	US-6,444,650 B1	09-03-2003	Cech et al.	
W.	А3	US-6,517,834 B1	02-11-2003	Weinrich et al.	
W	A4	US-6,608,188 B1	08-19-2003	Tsuchiya et al.	
١٨٨١	A5	US-6,627,619 B2	09-30-2003	Cech et al.	
W	A6	US 2002-0164788 A1	11-07-2002	Cech et al.	
M	A7	US 2002-0187471 A1	12-12-2002	Cech et al.	
M.	A8	US 2003-0009019 A1	01-09-2003	Cech et al.	
M	A9	US 2003-0032075 A1	02-13-2003	Cech et al.	
ilsal	A10	US 2003-0044953 A1	03-06-2003	Cech et al.	
W.	A11	US 2003-0096344 A1	05-22-2003	Cech et al.	
W'_	A12	US 2003-0100093 A1	05-29-2003	Cech et al.	•
W	A13	U.S. Application No. 09/432,503		Cech et al.	
W/	A14	U.S. Application No. 09/721,477		Cech et al.	
W	A15	U.S. Application No. 09/721,506		Cech et al.	
W	A16	U.S. Application No. 90/974,584		Cech et al.	

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M	B1	CA	2271718	A1	05-22-1998			
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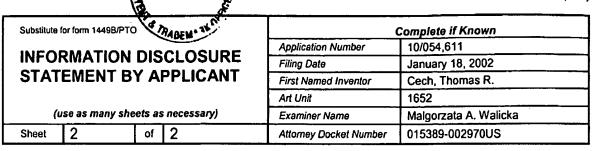
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		Application Number	10/054,611		
ł.	INFORMATION DISCLOSURE		Filing Date	January 18, 2002	
STA	TEMENT	BY A	PPLICANT	First Named Inventor	Cech, Thomas R.
				Art Unit	1652
	(use as many	sheets a	s necessary)	Examiner Name	Malgorzata A. Walicka
Sheet	1	of	2	Attorney Docket Number	015389-002970US

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dw	C1	ANDERSON, W. FRENCH "Human Gene Therapy" Nature, April 30, 1998, pp. 25-30, Vol. 392, Supp.	
dw	C2	CAMPBELL, KEITH & WILMUT, IAN "Totipotency or Multipotentiality of Cultured Cells: Applications and Progress" Theriogenology, January 1997, pp. 63-72, Vol. 47, Issue 1, Elsevier Science Inc.	
dw	СЗ	GEARHART, JOHN "New Potential for Human Embryonic Stem Cells" Science, November 6, 1998; pp. 1061-1062, Vol. 282, Issue 5391.	
du	C4	HORNSBY, PJ et al. "Adrenocortical Cells Immortalized by Telomerase: Potential Use for Ex Vivo Gene Therapy" Journal of Anti-Aging Medicine, 2000, pp. 411-417, Vol. 3, No. 4.	
M	C5	OSTLER ELIZABETH L. et al. "Telomerase and the Cellular Lifespan: Implications for the Aging Process" J. of Pediatric Endocrinology & Metabolism, 2000, pp. 1467-1476, Vol. 13, Supplement 6, Freund Publishing House Ltd. London.	
dur	C6	THOMSON, JAMES A. et al. "Embryonic Stem Cell Lines Derived from Human Blastocysts" <i>Science</i> , November 6, 1998; pp. 1145-1147, Vol. 282, Issue 5391.	
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FOREIGN PATENT DOCUMENTS								
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Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 

For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 

Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 

Applicant is to 60286486 v2

Substitute for form 1449B/PTO Complete if Known **Application Number** 10/054,611 INFORMATION DISCLOSURE Filing Date January 18, 2002 STATEMENT BY APPLICANT First Named Inventor Cech, Thomas R. Art Unit 1652 (use as many sheets as necessary) Examiner Name Malgorzata A. Walicka Sheet 2 2 Attorney Docket Number 015389-002970US

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dw	C6	THOMSON, JAMES A. et al. "Embryonic Stem Cell Lines Derived from Human Blastocysts" Science, November 6, 1998; pp. 1145-1147, Vol. 282, Issue 5391.		
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Examiner Signature	Malicka	Date Considered	11/23/04
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